1. A process for encoding data, comprising:

estimating forms of a plurality of functions, each function relating encoded size to encoded quality for an associated frame belonging to a sequence of frames, each frame having data for an image; and

estimating a best quality value for producing encoded frames whose encoded sizes satisfy one or more constraints, the constraints being associated with one of a transmission line bandwidth, a receiver buffer size and total compressed size, the estimating a best quality value being based in part on the functions.

2. The process of claim 1 further comprising

transmitting frames of the sequence wherein at least some of the frames are encoded with a quality based upon the best quality value.

3. The process of claim 1 wherein the transmitting includes transmitting at least some of the frames encoded with said best quality value.

4. The process of claim 1, wherein the estimating a best quality value includes executing a search that reduces the search range for said best quality value by subdivision.

5. The process of claim 4 wherein said search is a subdivision search algorithm.

6. The process of claim 4 wherein said search is a binary search algorithm.

7. The process of claim 1, further comprising:

encoding the frames of the sequence with the best quality value in response to the estimating.

8. The process of claim 7, wherein each encoded frame produces a group of temporally encoded pictures.

9. The process of claim 1, wherein each act of estimating one of the forms, further comprises:

computing a plurality of pairs of encoded quality and encoded size values for each frame of the sequence from encoded frame data; and

determining a functional relationship between values of the encoded quality and the encoded size for the plurality of frames from the pairs of values.

10. The process of claim 9, wherein the computing further comprises:

encoding each frame of the sequence with a plurality of qualities to compute encoded data sizes associated with each of the plurality of qualities.

11. The process of claim 10, wherein the acts of encoding of a frame with the plurality of qualities are performed in parallel.

12. The process of claim 1, wherein the estimating a best quality value, further comprises:

selecting an encoded image quality of one of the plurality of frames; and

deciding whether the encoded size associated with the encoded image quality satisfies a constraint based on one of transmission bandwidth, receiver buffering, total compressed size, and receiver prebuffering.

13. The process of claim 12, wherein the deciding is based on two of the transmission bandwidth, receiver buffering, and receiver prebuffering.

14. The process of claim 12, further comprising:

determining the encoded size associated with each encoded image quality from the form of the functional relation between the encoded quality and the encoded size for the associated frame.

15. The process of claim 10, wherein the transmitting comprises:

selecting the one of the plurality of qualities having a closest value to the best quality value; and

wherein the transmitting sends frames encoded with the selected quality.

16. A system for encoding image frames, the system comprising:

a variable bit-rate encoder; and

a controller connected to receive data on sizes on image frames encoded by the encoder and to control quality of the encoded frames produced by the encoder, the controller capable of causing the encoder to generate encoded data at a rate responsive to one or more of a bandwidth of a transmission line, space in a receiver buffer and a total size constraint.

17. The system of claim 16, wherein the controller is configured to determine a relation between quality of an encoded image frame and amount of encoded data from the received size data.

18. The system of claim 16, wherein the controller is configured to determine a best quality value for encoding an image frame from size data on data frames encoded with different qualities.

19. A program storage media storing computer executable instructions, the instructions to cause a computer to:

estimate forms of a plurality of functions, each function relating encoded size to encoded quality for an associated frame belonging to a sequence of frames, each frame having data for an image;

estimate a best quality value for producing encoded frames whose encoded sizes satisfy one or more constraints, the constraints being associated with one or more of a transmission line bandwidth, a receiver buffer size and a total size constraint, the estimating a best quality value being based in part on the functions; and

order transmission of frames of the sequence, at least some of the frames being encoded with a quality based on the best quality value.

20. The media of claim 19, wherein the instruction to estimate a best quality value causes the computer to execute a search.

21. The media of claim 20 wherein said search is a binary search algorithm.

22. The media of claim 19, the instructions further causing the computer to:

encode the frames of the sequence with the best quality value in response to the estimating.

23. The media of claim 22, wherein each encoded frame produces a group of temporally encoded pictures.

24. The media of claim 19, wherein each instruction to estimate one of the forms, further causes the computer to:

compute a plurality of pairs of encoded quality and encoded size values for each frame of the sequence from encoded frame data; and

determine a functional relationship between values of the encoded quality and the encoded size for the plurality of frames from the pairs of values.

25. The media of claim 24, wherein the instruction to compute further causes the computer to:

encode each frame of the sequence with a plurality of qualities to compute encoded data sizes associated with each of the plurality of qualities.

26. The media of claim 19, wherein the instruction to estimate a best quality value, further causes the computer to:

select an encoded image quality of one of the plurality of frames; and

decide whether the encoded size associated with the encoded image quality satisfies a constraint based on one of transmission bandwidth, receiver buffering, and receiver prebuffering.